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Cable-routing device

Claims

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- 1. Cable-routing device comprising links that are open at the ends, joined together in pivoting fashion and can be angled relative to each other in at least two directions. said links being arranged one behind the other in the longitudinal direction of the cable-routing device and forming at least one guide channel by means of guide elements located radially outwards, where tensile force-absorbing pivoting joints are located between links joined together in pivoting fashion within the cable-routing device and the links each display corresponding joint elements, characterized i n that at least one pivoting joint (6, 7) is designed in such a way that, in order to form and/or disconnect the pivoting joint, the respective links (2) and/or joint elements to be joined to one another and/or disconnected from one another can be joined and/or separated in a direction (8) that encloses an angle relative to the longitudinal axis (9) of the cable-routing device.
- 2. Cable-routing device according to Claim 1, characterised in that the joint elements of links (2) joined together in pivoting fashion can be designed as a joint body (6), particularly a joint ball, and a joint body receptacle (7), particularly a ball

35 socket.

3. Cable-routing device according to Claim 1 or 2, c h a r a c t e r i s e d i n t h a t the direction (8) for connecting the links and/or the joint elements to form the pivoting joint and/or for disconnecting the pivoting joint encloses an angle of 45° to 135° with the longitudinal axis (9) of the cable-routing device.

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- 4. Cable-routing device according to Claim 2 or 3,

 10 characterised in that the joint axes

 (6a, 11) of one or both joint elements (6, 7) are trans
 verse to the longitudinal axis (9) of the cable-routing device.
- 15 5. Cable-routing device according to one of Claims 1 to 4, c h a r a c t e r i s e d i n t h a t the joint elements (6, 7) are each supported by a support (15a,b) and the supports of the two joint elements (6, 7) of a link are offset relative to each other in a direction perpendicular to the longitudinal axis (9) of the cable-routing device.
- Cable-routing device according to one of Claims 1 to 5,
 characterised in that the pivoting
 joint is a snap-in connection.
- 7. Cable-routing device according to one of Claims 2 to 6, c h a r a c t e r i s e d i n t h a t at least one recess (17) is provided adjacent to a receiving opening (18) for the joint body in the joint body receptacle, extending in its longitudinal direction at least partially around the circumference of the receptacle (10).
- 8. Cable-routing device according to one of Claims 1 to 7,
 characterised in that links are provided that are provided with at least one brace (16, 30), extend-

ing transverse to the longitudinal direction of the cable-routing device and possibly bearing a guide element (3), and in that the brace (16, 30) displays at least one opening (19, 20, 31) extending in the longitudinal direction of the cable-routing device, which can optionally serve to accommodate a line or other device within the cable-routing device.

9. Cable-routing device according to Claim 8,
10 characterised in that the brace is designed as a base (16).

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- 10. Cable-routing device according to one of Claims 1 to 9, c h a r a c t e r i s e d i n t h a t the links each display only one guide element (3), which extends at least around almost the entire circumference of the cable-routing device.
- 11. Cable-routing device according to one of Claims 2 to 10, 20 characterised in that the joint body receptacle (7) is provided with an opening (22), into which a tool for disassembling the joint body can be inserted.
- 12. Cable-routing device according to Claim 11,
 25 characterised in that the opening (22)
 displays a shoulder (23), a distance away from the inside
 of the joint body receptacle, against which a tool can be
 positioned in the manner of a lever.
- 30 13. Cable-routing device according to one of Claims 1 to 12, c h a r a c t e r i s e d i n t h a t the links are of one-piece design.
- 14. Cable-routing device according to one of Claims 1 to 13,

 25 characterised in that the links form a tubular section that is closed around the entire circum-

ference, apart from at least one slit-type opening (5) extending over the entire length of the link, where appropriate.

- 5 15. Cable-routing device according to one of Claims 1 to 14, c h a r a c t e r i s e d i n t h a t the links (2) display a rotationally symmetrical envelope and end areas (25), overlapping in the longitudinal direction of the cable-routing device, that are designed as spherical caplike sections.
 - 16. Cable-routing device according to one of Claims 1 to 15, c h a r a c t e r i s e d i n t h a t at least one, or all, of the pivoting joints (6, 7) can be disconnected independently of other pivoting joints, completely disconnecting the cable-routing device.
- 17. Cable-routing device according to one of Claims 1 to 16, c h a r a c t e r i s e d i n t h a t at least one guide element (3) of a link displays at least one, preferably closable, opening (5) or predetermined breaking point for radially inward insertion of a tool into the cable-routing device for disconnecting at least one pivoting joint of the link.

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